REMARKS

Claims 17 - 29 are presently pending. In the above-identified Office Action, the Examiner responded to Applicants' arguments and finally rejected Claims 17, 19 and 21 - 29 under 35 U.S.C. § 102(e) as being anticipated by Izadpanah *et al.* (U.S. Patent no. 6,560,213), hereinafter 'Izadpanah'. Claims 18 and 20 were finally rejected under 35 U.S.C. § 103(a) as being unpatentable over Izadpanah in view of Marko *et al.* (U. S. Patent No. 6,154,452), hereinafter 'Marko'.

Applicants' Attorney (William Benman) responded by conducting numerous telephone interviews with the Examiner (John Lee) to discuss the further prosecution of the Application. During the interviews, Applicants' Attorney reiterated the position asserted previously and asked the Examiner to provide support in the cited references for the rejections of the Claims. A discussion ensued prompting the Examiner to discuss the issues with his Supervisor. After consultation with his Supervisor, the Examiner restated his position. Accordingly, Applicants' Attorney requested and was granted an interview with the Examiner's Supervisor (Nick Corsaro).

After Mr. Corsaro reviewed the file, a brief telephone interview was conducted with Applicants' Attorney. Mr. Corsaro indicated that, on cursory review, the primary reference cited against the claims (Izadpanah) does not support the rejections thereof inasmuch as it does not appear to teach a distribution of an IF signal. Mr. Corsaro suggested that we submit our arguments in an Amendment After Final and that the Amendment will be fully considered.

Mr. Corsaro suggested further that he and/or Mr. Lee will conduct a more thorough review of the reference (and/or presumably a search) and subject to their findings regarding the question of whether the millimeter wave signal is lower than the RF (?) signal, this case should be allowable. In the event that a new reference or basis for rejection is found, Mr. Corsaro indicated that a nonfinal rejection would be issued.

Accordingly, this Paper is submitted to represent Applicants' position with respect to the final rejections. That is, for the reasons set forth more fully below, the present Application is submitted as properly presenting Claims patentable over the prior art. Reconsideration, allowance and passage to issue are respectfully requested.

As previously noted, the present invention addresses the need in the art for a system and method for distributing satellite digital audio radio service to a plurality of receivers that are not independently mobile relative to each other. The inventive system includes a satellite antenna and a radio frequency (RF) satellite receiver. In the best mode, the RF satellite receiver is a terrestrial repeater. The repeater decodes a stream of data received from the satellite and recodes the stream using an intermediate frequency satellite radio terrestrial broadcast format. In the best mode, the signal is an intermediate frequency signal in the XM radio, multi-carrier modulation (MCM) format.

The recoded signal is rebroadcast by the repeater via a distribution network and received by a plurality of intermediate frequency (IF) receivers. The distribution system may be wireless, cable, or fiber optic. In the illustrative embodiment, the IF receivers are modified conventional satellite digital audio radio service receivers. A user interface is provided for each IF receiver to allow for channel selection and audio processing.

The invention is set forth in Claims of varying scope of which Claim 29 is illustrative. Claim 29 recites:

> 29. A satellite digital audio radio multipoint distribution system comprising:
>
> a satellite antenna for receiving a satellite digital audio radio signal;
>
> a terrestrial repeater connected to said antenna for decoding said satellite signal and recoding said signal into an intermediate frequency (IF) satellite radio terrestrial broadcast format signal; and
>
> **a system for distributing said recoded IF signal**. (Emphasis added.)

None of the references, including those cited but not applied, taken alone or in combination, teaches, discloses or suggests the invention as presently claimed. That is, none of the references teaches, discloses or suggests a satellite digital audio radio

multipoint distribution system having a terrestrial repeater adapted to receive and recode satellite signals into IF signals and a system for distributing the recoded IF signals.

In the above-identified Office Action, the Examiner relied heavily on Izadpanah. Izadpanah purports to teach a wideband wireless access local loop based on millimeter wave technology. The Examiner suggested *inter alia* that in Figs. 1 and 4 and from col. 4, line 35 to col. 5, line 36, Izadpanah teaches a terrestrial repeater connected to a satellite antenna for decoding the satellite signal and recoding (?) the signal into an intermediate frequency (IF) satellite radio terrestrial broadcast format signal as well as a system for distributing the recoded IF signal. However, this position is not supported by the reference.

In the passage relied upon by the Examiner (col. 4, line 35 to col. 5, line 36) RF down conversion to IF is performed by an up/down converter 52. This signal is split and output to a device 66 and a digital user interface 76. Without regard to the fact that no means is disclosed for decoding the satellite signal and recoding the signal into **an intermediate frequency (IF) satellite radio terrestrial broadcast format signal** as suggested by the Examiner, Izadpanah clearly provides no system or method for **distributing** the **IF** signal.

In this regard, the Examiner suggests that this teaching is provided at '4' in Fig. 1. Element 4 in Fig. 1 of the reference is a central node. The Examiner's position begs the question: how can the central node be used to distribute a received IF signal given that the reference is clear in its teaching that the central node precedes the downconverter 52 of Fig. 4. In accordance with the clear teaching of the reference, the signal is received by the antenna atop the central node 4 in Fig. 1 and communicated as a **millimeter wave** signal to a number of sectors '1' in each of which a customer interface '2' is disposed. (See Fig. 3 and col. 2, line 67 through col. 3, line 3.) Obviously, a millimeter wave signal is not an IF signal. Thus, the clear teaching of the reference is that the signal is distributed as a millimeter wave signal, not an IF signal.

As illustrated in Figs. 3 and 4, a customer interface 2 is disposed within each sector 1. As shown in Fig. 4, the downconverter relied upon by the Examiner is

disposed in the customer interface 2. Clearly, no subsequent distribution at IF is provided by this reference.

Accordingly, Applicants respectfully submitted that the rejection of Claims 17, 19 and 21 - 29 was improper and should be withdrawn. These claims and the claims dependent thereon were asserted as being allowable.

In the Response to Arguments section of the Final Rejection, the Examiner suggested that in Fig. 1 and column 3, lines 31 – column 4, line 34, Izadpanah teaches broadcasting a converted IF signal to customers. However, there is nothing in the cited passage or elsewhere in the reference that supports this position. On the contrary, at column 3, lines 42 – 47 the following is found:

> Communication between the **customer interfaces** 2 and larger networks **4**, 20, or 22 take place via the wideband wireless access local loop network, **which utilizes millimeter wave transmissions** between the customer interfaces 2 and access interface points 8 to provide a gateway between the system and the user. (Emphasis added.)

See also column 4, lines 19 – 24 which read:

> After transmission of a millimeter wave signal 32 by the transceiver/antenna 10 of the access interface points 8, the signal is received by the millimeter wave transceiver/antenna 12 of the customer interfaces 2, where it is converted into an intermediate frequency suitable for use by the equipment resident at the customer interface 2.

Clearly, the reference teaches distribution of a millimeter wave as opposed to an IF signal.

As to the remaining possibility raised by Mr. Corsaro that the millimeter wave signal might be lower than the received RF signal, it should be noted that millimeter waves are radio frequencies in the range from 30 to 300 GHz, see http://www.eng.tau.ac.il/heb/projects/mmwave/mmw.htm. As such, it is unlikely that the received radio signal would be higher than the millimeter wave signal as it would be in the infrared portion of the electromagnetic spectrum. Further, any such difference in frequency would not be tantamount to an 'IF' signals as that term is used in the art

inasmuch as IF signals are those signals resulting from a process or step of up or down conversion. (See http://encarta.msn.com/encnet/features/dictionary/DictionaryResults.aspx?refid=1861692531.)

Accordingly, the present claims are submitted as being allowable. Reconsideration, allowance and passage to issue are therefore respectfully requested.

Respectfully submitted,
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